

From: "Eron Dodak" <edodak@integral-corp.com>  
To: "Novak, Madi" <Novak.Elisabeth@epa.gov>  
CC: "Michael PINTO" <michael.pinto@totalenergies.com>  
"Peterson, Lance" <petersonle@cdmsmith.com>  
Date: 8/16/2021 1:50:16 PM  
Subject: RE: Arkema Project Area: Pre-Design Investigation Work Plan - Revisions 3/10/2021

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Hi Madi,

You bet – we will work on compiling the work plan with the final appendices and requesting the confidentiality releases.  
Thanks!

**ERON DODAK**

Tel: 503.943.3614 | Cell: (b) (6)

**INTEGRAL CONSULTING INC.**

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From: Novak, Madi <Novak.Elisabeth@epa.gov>  
Sent: Monday, August 16, 2021 12:27 PM  
To: Eron Dodak <edodak@integral-corp.com>  
Cc: 'Michael PINTO' <michael.pinto@totalenergies.com>; Peterson, Lance <petersonle@cdmsmith.com>  
Subject: RE: Arkema Project Area: Pre-Design Investigation Work Plan - Revisions 3/10/2021

Thank you Eron,

EPA approves the rev\_2012-07-12 QAPP as the final document.

Would it be possible for you to provide one Work Plan file with all the final appendices, including this QAPP, and provide the confidentiality releases as before? This will give us all a clean, final document to work from, but let me know if you have any concerns.

Thank you,

Madi

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From: Eron Dodak <edodak@integral-corp.com>  
Sent: Friday, August 6, 2021 8:49 PM  
To: Novak, Madi <Novak.Elisabeth@epa.gov>  
Cc: 'Michael PINTO' <michael.pinto@totalenergies.com>; Peterson, Lance <petersonle@cdmsmith.com>  
Subject: FW: Arkema Project Area: Pre-Design Investigation Work Plan - Revisions 3/10/2021

Hi Madi,

Thank you for the comments on the QAPP. Below is a link to the revised QAPP that addresses EPA's comments. We also provided a response to each comment in your email message below in red font. Please let me know if you have any questions.

Thanks and have a nice weekend!

(b) (6)

**ERON DODAK**



From: Novak, Madi <Novak.Elisabeth@epa.gov>

Sent: Friday, July 9, 2021 12:13 PM

To: Eron Dodak <edodak@integral-corp.com>; 'Michael PINTO' <michael.pinto@totalenergies.com>

Cc: Peterson, Lance <peterstone@cdmsmith.com>

Subject: FW: Arkema Project Area: Pre-Design Investigation Work Plan - Revisions 3/10/2021

Hi Mike and Eron,

EPA reviewed the updated Arkema QAPP dated June 1, 2021 and provided by Integral on July 2, 2021 against the revision summary table and previous EPA comments. EPA has the following comments/requested changes:

EPA review against *Table 1. Summary of Revisions to the Arkema Project Area PDI Work Plan QAPP, dated March 10, 2021* (44 revisions in total)

1. Regarding Revision No. 44: per Table B-3, VOCs and NWTPH-Gx are missing from Table B-14. **LSS Response: Table B-14 is limited to archived samples and LSS is not planning to archive VOC or NWTPH-Gx samples.**

EPA review against *EPA Comments and Responses on Draft (dated June 18, 2020) and Revised (dated December 18, 2020) Pre-Design Investigation Work Plan, Arkema Project Area (EPA Response dated January 28, 2021)* (4 QAPP-related comments in total)

2. Comment on Response to EPA QAPP Specific Comment 5 (September 14, 2020) regarding adding dissolved organic carbon (DOC) to Table B-4: DOC is listed on Table B-4 under Transition Zone Water and not listed under Pore Water; DOC is listed in reverse on Table B-1 (included under Porewater and not included under Transition Zone Water). Edit to ensure that DOC is listed correctly in these two tables. **LSS Response: Thanks for catching the inconsistency. DOC is for the Porewater analysis only. Table B-4 was edited accordingly.**
3. Comment on Response to EPA Comments on redline text added to the Revised PDI WP, Comment 11, Appendix B, QAPP Section 2.4.5.6 TAL Metals, page 2-17: Edit Table B-4 to include the correct method for mercury analysis (7470B) for sediment porewater and sediment transition zone water (currently shows 7470A). **LSS Response: Thanks for pointing out the analytical method error. Mercury methods for soils and sediments were revised to 7470B on Table B-4.**

EPA review of 3 clarifications requested in March 23, 2021 EPA email to the LSS team – copied below

4. Comment on requested clarification No. 2 (Project Action Limits [PALs] comparison):
  - a. Table B-5 (Analytes and Reporting Limits for Sediment and Soil Samples) ☐correct the following PALs: 1,2,3,4,7,8-HxCDF - 0.0004 (currently 0004); naphthalene - 140,000 µg/kg (PTW threshold) (currently blank). **LSS Response: Thanks for catching the typographical error and missing PALs. Table B-5 was revised address this comment.**
  - b. Table B-6 (Analytes and Reporting Limits for Groundwater and Equipment Blank Samples) ☐The MDLs presented on this table were reviewed against the PALs. The MDLs presented for several PAHs (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenz[a,h]anthracene, and indeno[1,2,3-cd]pyrene) do not fall below their respective PALs. A note should be added to the table documenting these instances when the MDL will not meet the PALs (i.e. Table 17 CULs) and that the presented MDL/LOQ is the lowest MDL/LOQ that can be achieved. **LSS Response: A footnote regarding the PAL exceedances for these constituents was added to Table B-6.**

Please let me know if you have any questions.

Thank you,  
Madi



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**From:** Eron Dodak <[edodak@integral-corp.com](mailto:edodak@integral-corp.com)>  
**Sent:** Monday, July 5, 2021 2:11 PM  
**To:** Novak, Elisabeth <[Novak.Elisabeth@epa.gov](mailto:Novak.Elisabeth@epa.gov)>  
**Cc:** 'Michael PINTO' <[michael.pinto@totalenergies.com](mailto:michael.pinto@totalenergies.com)>; Peterson, Lance <[PetersonLE@cdmsmith.com](mailto:PetersonLE@cdmsmith.com)>  
**Subject:** RE: Arkema Project Area: Pre-Design Investigation Work Plan - Revisions 3/10/2021

Hi Madi,

I just realized that the revision summary table was not attached. Please see attached. Thanks!

**ERON DODAK**

Tel: 503.943.3614 | Cell: 503.407.2933

**INTEGRAL CONSULTING INC.**

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**From:** Eron Dodak  
**Sent:** Friday, July 2, 2021 3:08 PM  
**To:** Novak, Madi <[Novak.Elisabeth@epa.gov](mailto:Novak.Elisabeth@epa.gov)>  
**Cc:** 'Michael PINTO' <[michael.pinto@totalenergies.com](mailto:michael.pinto@totalenergies.com)>; Peterson, Lance <[petersonle@cdmsmith.com](mailto:petersonle@cdmsmith.com)>  
**Subject:** RE: Arkema Project Area: Pre-Design Investigation Work Plan - Revisions 3/10/2021

Hi Madi,

Below is a link to download the updated QAPP and attached is a table summarizing the revisions. The revisions fall into three categories:

- Revision numbers 130 were made to address comments provided by EPA and subsequent agreements between LSS and EPA.
- Revision numbers 3143 were made to address updates from Eurofins/TestAmerica to be consistent with current SOPs and MDL studies.
- Revision number 44 was made to add a table for archived sediment samples that was missing from the QAPP. The hold times are consistent with the Willbridge Cove PDI work plan dated December 10, 2020.

Please let me or Mike know if you have any questions.

Are you available for a meeting to discuss the details of the riverbank soil sampling in the next week or so? If so, please let us know your availability. Thanks and have a nice weekend!

**Revised QAPP**

(b) (6)

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**From:** Eron Dodak  
**Sent:** Wednesday, April 21, 2021 4:01 PM  
**To:** 'Novak, Madi' <[Novak.Elisabeth@epa.gov](mailto:Novak.Elisabeth@epa.gov)>; Michael PINTO <[michael.pinto@total.com](mailto:michael.pinto@total.com)>  
**Cc:** Peterson, Lance <[petersonle@cdmsmith.com](mailto:petersonle@cdmsmith.com)>  
**Subject:** RE: Arkema Project Area: Pre-Design Investigation Work Plan - Revisions 3/10/2021

Will do Madi. Thanks!

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**From:** Novak, Madi <[Novak.Elisabeth@epa.gov](mailto:Novak.Elisabeth@epa.gov)>  
**Sent:** Wednesday, April 21, 2021 3:58 PM  
**To:** Eron Dodak <[edodak@integral-corp.com](mailto:edodak@integral-corp.com)>; Michael PINTO <[michael.pinto@total.com](mailto:michael.pinto@total.com)>  
**Cc:** Peterson, Lance <[petersonle@cdmsmith.com](mailto:petersonle@cdmsmith.com)>



**Subject:** RE: Arkema Project Area: Pre-Design Investigation Work Plan - Revisions 3/10/2021

Thank you Eron,  
Yes, please go ahead and provide the updated QAPP when it is available.  
Thank you,  
Madi

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**From:** Eron Dodak <edodak@integral-corp.com>  
**Sent:** Wednesday, April 21, 2021 12:43 PM  
**To:** Novak, Madi <Novak.Elisabeth@epa.gov>; Michael PINTO <michael.pinto@total.com>  
**Cc:** Peterson, Lance <petersonle@cdmsmith.com>  
**Subject:** RE: Arkema Project Area: Pre-Design Investigation Work Plan - Revisions 3/10/2021

Hi Madi,

We realized that we have not responded to Comment 1 below. This comment is acknowledged by LSS.

Regarding Comment 2, we have worked with you and came to agreements on changing some of the analytical methods for aqueous samples to achieve lower detection limits. We are updating the March 10, 2021 version of the QAPP to reflect these changes to the analytical methods for use by the laboratories and for data validation. Let us know if you would like a copy of the updated QAPP when it is available. We will also send you the QAPP signature page with the rest of the signatures populated, which was noted in Comment 3.

Please let me know if you have any questions. Thanks!

**ERON DODAK**

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**INTEGRAL CONSULTING INC.**

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**From:** Novak, Madi <Novak.Elisabeth@epa.gov>  
**Sent:** Tuesday, March 23, 2021 12:29 PM  
**To:** Eron Dodak <edodak@integral-corp.com>; Michael PINTO <michael.pinto@total.com>  
**Cc:** Peterson, Lance <petersonle@cdmsmith.com>  
**Subject:** RE: Arkema Project Area: Pre-Design Investigation Work Plan - Revisions 3/10/2021

Hi Mike and Eron,

Thank you for joining me on a quick call yesterday evening. As we discussed, LSS elected to address comments pertaining to the FSP and QAPP in EPA's January 28, 2021 conditional approval. The modifications are overall responsive. However, note that the conditional approval comments still apply (for the non-FSP and QAPP comments) and the following items require clarification.

1. For FSP Section 4.4.1.3, please note that that Gasco NAPL screening protocols can be utilized for the Arkema Project Area but the Gasco site-specific PTW-NAPL definition is not applicable. The site-specific PTW-NAPL definition is based on the definition of substantial product in the Gasco SOW (CERCLA Docket No. 10-2009-0255) that pre-dates the ROD. Additionally, the Gasco SOW discussion on substantial product also states that: "As noted above, the term "substantial" product is intended to 1) target product that is related to potential future mobility and 2) indicate a preference for removal as defined by RAO #1." The Gasco SOW RAO #1 states that: "Removal of sediments containing substantial amounts of product (e.g., solid tar and/or NAPL) that may serve as potential future source of risk material, unless it can be shown that the costs of such removal are clearly disproportionate to the degree of risk reduction to be attained through physical removal as compared to other remedial options for the same material." This RAO indicates a preference to remove solid tar and/or NAPL which is not acknowledged in the text added to the Arkema PDIWP/FSP. The Gasco-specific PTW-NAPL definition should not be referenced



1. with regard to the Arkema Project Area and the PTW discussion in the ROD (ROD Section 13) should be referenced instead. Additionally, EPA expects that visual observations of non-mobile product, if any, will be recorded in field logs even though it may not be considered to be NAPL based on the Gasco NAPL screening protocol.
2. LSS should review QAPP Tables B-5 and B-6 against the ROD Errata #2 (see: <https://semspub.epa.gov/work/10/100200076.pdf>) to ensure the correct project action limits (PALs) are referenced. In addition, both MDLs and LOQs need to be below PALs per EPA QAPP Specific Comment 10. This is not the case for all D/Fs with CULs, dieldrin, and tetrachloroethene for solid samples and DDD, DDE, DDT, pentachlorophenol, arsenic, cadmium, lead, Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Chrysene, Dibenz[a,h]anthracene, Indeno[1,2,3-cd]pyrene, 2,3,7,8-TCDD, Diesel Range Organics, cyanide, and tetrachloroethene for water samples. LSS should work with the contract laboratory to identify a different analytical method that is capable of achieving MDLs and LOQs below PALs or contact laboratories that are capable of achieving quantitation limits below PALs.
3. Please collect the additional signatures on the QAPP signature page and I[REDACTED] sign as well. A signature from the EPA Project QA manager is not necessary; this line may be removed or left blank.

Please let me know if you have any questions.

Thank you,  
Madi

Madi Novak, Remedial Project Manager  
EPA Region 10, Superfund & Emergency Management Division  
Oregon Operations Office  
503-326-3277 (O)  
(b) (6) (C)  
She/Her/Hers

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**From:** Eron Dodak <[edodak@integral-corp.com](mailto:edodak@integral-corp.com)>  
**Sent:** Thursday, March 11, 2021 8:49 AM  
**To:** Novak, Madi <[Novak.Elisabeth@epa.gov](mailto:Novak.Elisabeth@epa.gov)>  
**Cc:** Michael PINTO <[michael.pinto@total.com](mailto:michael.pinto@total.com)>; Karen TRAEGER <[karen.traeger@external.total.com](mailto:karen.traeger@external.total.com)>; [dlivermore@integral-corp.com](mailto:dlivermore@integral-corp.com); [rwebb@dofnw.com](mailto:rwebb@dofnw.com); [ngray@dofnw.com](mailto:ngray@dofnw.com)  
**Subject:** Arkema Project Area: Pre-Design Investigation Work Plan - Revisions 3/10/2021

Hi Madi,

On behalf of LSS, agent for Arkema Inc., below is a link to download an electronic copy of the pre-design investigation (PDI) work plan for the Arkema Project Area. This work plan is being submitted in accordance with Section 3.1(a) of the Administrative Settlement Agreement and Order on Consent for Remedial Design at the River Mile 7 West Project Area (CERCLA Docket No. 10-2020-0054).

The ShareFile Links below include the following:

- Compiled PDF of the work plan text, tables, figures, and appendices that can be downloaded to your computer.
  - The changes from the December 18, 2020 version are limited to the following:
    - Title Page (added [REDACTED] Revised March 10, 2021 [REDACTED] below the December 18, 2020 date to avoid confusion with the December 18, 2020 version)
    - Figures 3-4 and 3-5 (added dioxin and furan analyses for selected groundwater/porewater samples)
    - Appendix A - FSP
    - Appendix B - QAPP
  - Please note that this work plan is tagged to the extent feasible. Materials received from third party sources in the appendices may not be fully tagged.
- PDFs of the redline/strikeout versions of the FSP and QAPP text that were modified to address the EPA team [REDACTED]

- comments.

Please let me or Mike Pinto know if you have any questions about this submittal. Thanks!

**PDI Work Plan**

(b) (6)

**Redline/Strikeout Text (FSP and QAPP)**

(b) (6)

**ERON DODAK**

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